

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-7 (cancelled)

8. (new) In a method for cooling extruded plastic foil hose, comprises the steps: feeding pressurized coolant, mainly cooling air, to an external surface of an non-stabilized section of the foil hose; providing a ring channel for coolant stream by using a tubular skirt at a radial distance from the external surface of the foil hose at a drawing aperture of an apparatus for continuous extrusion of the foil hose, mainly extruder nozzle, having a coolant inlet and outlet, and generating at least one external coolant stream between the coolant inlet and outlet of the ring channel, characterised by the steps of providing free outlet for the ring channel and tubular, substantially flat wall surface for the skirt limiting said ring channel (G); directing the external spiral coolant stream (17) generated exclusively by tangential coolant streams to a part of the unstabilized section of the foil hose (F) just exiting from the drawing aperture (4) of the apparatus; and feeding an internal spiral coolant stream (16) generated exclusively by internal tangential coolant streams, in combination with said external spiral coolant stream (17) or in substitution thereof; directing said internal spiral coolant stream (16) on an internal surface of the non-stabilized section of said foil hose (F) for cooling and stabilising the non-stabilized section the foil hose (F); carrying out said foil hose cooling and stabilising steps by purposeful using centrifugal forces affecting the external and/or the

internal spiral coolant streams (17, 16) along the external and/or the internal surface of the foil hose (F), as well as density and pressure differences between various parts of the external and/or the internal spiral coolant stream/s (17, 16).

9. (new) A method as claimed in claim 8, characterised by providing two or more tangential inlets and the free (throttling-free) outlet for the external and internal spiral coolant streams (17, 16) in the corresponding ring channel (G, G1).
10. (new) A method as claimed in claim 8, characterised by the additional step of applying both internal and external spiral coolant streams (16, 17) simultaneously, and preferably in counter-current.
11. (new) A method as claimed in claim 8, characterised by the additional step of cutting up the tubular foil hose (F) longitudinally, at least at two places, forming flat foil stripes being rolled up separately by roll pairs (H) during or immediately after the final stage of the foil cooling and stabilizing steps.
12. (new) A method as claimed in claim 9, characterised by the additional step of cutting up the tubular foil hose (F) longitudinally, at least at two places, forming flat foil stripes being rolled up separately by roll pairs (H) during or immediately after the final stage of the foil cooling and stabilizing steps.
13. (new) A method as claimed in claim 10, characterised by the additional step of cutting up the tubular foil hose (F) longitudinally, at least at two places, forming flat foil stripes being rolled up separately by roll pairs (H)

during or immediately after the final stage of the foil cooling and stabilizing steps.

14. (new) An apparatus for cooling extruded plastic foil hoses, that is arranged in the area of an extruder nozzle having a drawing aperture, said apparatus comprises an external cooling unit arranged along an external surface of the extruded foil hose, and it is provided with a skirt at a radial distance from the external surface of the foil hose thereby forming a ring channel, and having at least one inlet for a coolant connected to a coolant supply and an outlet; said coolant inlet is arranged to the foil hose in such a way to feed the coolant stream in the channel between the coolant inlet and outlet, characterised in that said external cooling unit (1A) of the cooling apparatus (1) is arranged direct on the extruder nozzle (3) around the drawing aperture (4); said channel forming skirt of the external cooling unit (1A) is formed by a substantially flat tubular skirt (P) and/or a conical funnel (5); said inlet of the channel (G) is formed as a tangential inlet (6, 7) directed to a part of the unstabilized section of the foil hose (F) just exiting from a drawing aperture (4) for generating an external spiral coolant stream (17) for cooling and stabilising the unstabilized section of the foil hose (F) between the tangential coolant inlet (6, 7) and the outlet of the channel (G) which is formed as a free (throttling-free) outlet; the cooling apparatus (1) is provided with an internal cooling unit (1B) in combination with the external cooling unit (1A) or in substitution thereof, arranged within the extruded foil hose (F); said internal cooling unit (1B) is provided with at least one coolant inlet (13A) arranged tangentially to the unstabilized section of the foil hose

(F) to feed the coolant in tangential streams for generating an internal spiral coolant stream (16) for cooling and stabilising the unstabilized section of the foil hose (F) between its coolant inlet (13A) and outlet (C).

15. (new) An apparatus as claimed in claim 14, characterised in that the external cooling unit (1A) has a coolant distribution drum (2) mounted direct on the extruder nozzle (3) coaxially with the drawing aperture (4), whose tangential inlet (6) communicates with a ring duct (7) coaxially surrounding the foil hose (F), around a part of the unstabilized section of the foil hose (F) just exiting from the drawing aperture (4), and the ring duct (7) joins the ring channel (G).

16. (new) An apparatus as claimed in claim 14, characterised in that the internal cooling unit (1B) comprises an air distribution unit (11), which is provided with nozzles (13) arranged to direct tangential coolant streams as coolant inlets (13A) to and along internal perimeter of the unstabilized section of foil hose (F); said nozzles (13) are connected to a pressurized coolant supply and their position is adjustable within the internal space of the foil hose (F); the internal cooling unit (1B) is provided with a coolant removal pipe (C) open at its exhaust end, and preferably the other end of which is connected to a vacuum unit.

17. (new) An apparatus as claimed in claim 15, characterised in that the internal cooling unit (1B) comprises an air distribution unit (11), which is provided with nozzles (13) arranged to direct tangential coolant streams as coolant inlets (13A) to and along internal perimeter of the unstabilized section of foil hose (F); said nozzles (13) are

connected to a pressurized coolant supply and their position is adjustable within the internal space of the foil hose (F); the internal cooling unit (1B) is provided with a coolant removal pipe (C) open at its exhaust end, and preferably the other end of which is connected to a vacuum unit.